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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,677	01/18/2002	Andrew J. Zosel	005557.P006	5443

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EXAMINER

TRAIL, ALLYSON NEEL

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,677

Applicant(s)

ZOSEL ET AL.

Examiner

Allyson N Trail

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Amendment

1. Receipt is acknowledged of the Amendment filed May 10, 2004.

Claim Objections

2. Claims 2 and 15 are objected to because of the following informalities:

Re claim 2, line 1: replace "are bars,-." with --are bars.--.

Re claim 15, line 7: replace "it" with --the confirmation projector--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

Claims 15 and 20 include the limitation of "projecting a non-targeted confirmation beam onto the plane...". It is unclear how the beam can be projected onto the plane of the target without being targeted. In other words, if the beam is projected to a specific place, i.e., onto the plane, the beam is being targeted.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 6, 7, 10, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsikos et al (6,736,321).

Tsikos et al teaches the following in regards to claims 1, 6, 7, 10, and 13:

"FIGS. 4A, 5A and 6A, wherein the image formation and detection modules in these systems employ area-type (2-D) image detection arrays. Such image detection arrays can be realized using CCD, CMOS or other technologies currently known in the art or to be developed in the distance future." (Col. 121, line 65 – Col. 122, line 3).

"An image formation and detection (IFD) module 3 having an imaging lens with a fixed focal length has a constant angular field of view (FOV)." (Col. 124, lines 62-64).

FIG. 1A shows a linear image formation and detection module having a field of view, a pair of planar laser illumination arrays for producing first and second stationary planar laser illumination beams.

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The following is also shown in figure 1A:

Two beams of light (6B and 6A) are projected onto a plane positioned at a focus distance from the base (housing 2), wherein the projections of the beams of light on the plane are geometric shapes, and wherein an intersection of the geometric shapes is at the center of the field of view of the lens. It is clearly shown in figure 1A that the distance between the lens and the plane is irrelevant. The two beams will intersect regardless of the distance that exists between the barcode and the lens.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-5, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsikos et al (6,736,321) in view of Bunce et al (5,598,007).

Tsikos et al's teachings are discussed above. Tsikos et al fails to specifically teach the beams of light projected onto the plane being in the geometric shape of a bar.

Bunce et al teaches the following in regards to claim 2 and 11:

“Several cursor images are within the scope of the invention. In one embodiment, the first and second cursor images are bars which intersect to form

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an "X". In another embodiment, the first and second cursor images are a ">" and "<" which together form an "X". (Col. 4, line 66 – Col. 5, line 3).

Bunce et al teaches the following in regards to claims 3 and 11:

Claim 23, which discloses, "the step of shaping the first cursor beam includes forming the first cursor beam such that the first geometric shape is a first bar and wherein the step of shaping the second cursor beam includes forming the second cursor beam such that the second geometric shape is a second bar oriented at a predetermined angle relative to the first bar when the target object is at the fixed object distance from the detector assembly." (Col. 16, lines 60-67).

Bunce et al teaches the following in regards to claims 4, 5, and 12:

Figure 1 shows two beams being projected from the apparatus. It is known that small images and large images (that are being read by the scanner) have different focal lengths and field of views depending on how far from the scanning apparatus each image is. Because of this fact, the desired object distance to ensure an accurate read varies from object to object. Bunnce et al teaches two beams in the geometric shape of a bar. It is clear that if the object to be scanned is close to the scanner, the two beams will meet each other at the end points and the two beams will form a carrot shape. If the object to be scanned is farther away, the two beams will bisect each other and form an "X" shape. Lastly, if the object to be scanned is even farther away, the two beams will intersect and form a "V" shape.

In view of Bunce et al's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use two

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beams in the shape of a bar. Tsikos et al teaches using two beams. Although Tsikos et al fails to specifically teach the beams being in the shape of a bar, it is common for bar code scanners to use bar shaped beams. One would be motivated to use a bar shaped beam in order to produce the most effective scanning.

9. Claims 8, 9, 14-17, 19-21, 23, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsikos et al (6,736,321) in view of Rigoni et al (EP1128315).

Tsikos et al's teachings are discussed above. Tsikos et al fails to teach a confirmation beam for confirming the processing of the image.

Rigoni et al teaches the following in regards to claims 8, 9, 15, 17, and 29:

"In an apparatus and a method for acquiring and reading optical codes, the indication of the reading result is carried out projecting a luminous figure onto the optical code, that is to say in the position on which the attention of the operator is focused. The luminous figure can have an information content also more complex than the simple indication of the end of the reading." (Abstract).

Teachings by Tsikos et al regarding claims 14, 16, 19-21, 23, 27, and 28 are discussed above. Tsikos et al however, failed to teach the limitation of the confirmation beam. Rigonie et al's teachings regarding the confirmation beam are discussed above.

In view of Bunce et al's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to include in

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Tsikos et al's scanner, a confirmation beam. Having a confirmation beam gives the operator a positive indication of whether or not the image was read and processed correctly. This indication allows the operator to know whether the code has been decoded before proceeding to read another code and makes the reading process more efficient.

10. Claims 18, 22, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsikos et al (6,736,321) in view of Bunce et al (5,598,007) and in further view of Rigoni et al (EP1128315).

Teachings by Tsikos et al in view of Bunce et al regarding claims 18, 22, and 24-26 are discussed above. Tsikos et al in view of Bunce et al however, failed to teach the limitation of the confirmation beam. Rigonie et al's teachings regarding the confirmation beam are discussed above.

In view of Bunce et al's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to include in the scanner taught Tsikos et al in combination with Bunce et al, a confirmation beam. (See above reasons to combine the scanner with the confirmation beam).

Response to Arguments

11. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

The current amendment overcame the prior art rejection (Ackley). Ackley's intersecting beams were dependent on the distance between the lens

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and the plane. A new art rejection has been therefore been given with Tsikos et al. Figure 1A of Tsikos et al discloses that the distance between the lens and the plain is irrelevant. Wherever the plane may be, the two beams (7A and 7B) will intersect at the center of the barcode symbol.

12. Applicant's arguments in regards to claims 15 and 20 have been fully considered but they are not persuasive (see 112 rejection above).

Claims 15 and 20 have been amended to include the limitation of the confirmation beam to be non-targeted. It is further argued that Rigoni et al teach a targeted confirmation beam. The currently amended claims are slightly unclear however. The amended claims 15 and 20 include a contradiction. The confirmation beam is "non-targeted" however it is precisely projected onto the plane of the target. If the beam is projected to a specific place, i.e., onto the plane, the beam is targeted. Rigoni et al's confirmation beam is projected very closely to the symbol being read. If the symbol is considered the plane, than Rigoni et al reads on the claim.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

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period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson N. Trail* whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [allyson.trail@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

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A handwritten signature in black ink, appearing to be 'Thien M. Le', written in a cursive style.

Allyson N. Trail
Patent Examiner
Art Unit 2876
July 23, 2004

THIEN M. LE
PRIMARY EXAMINER